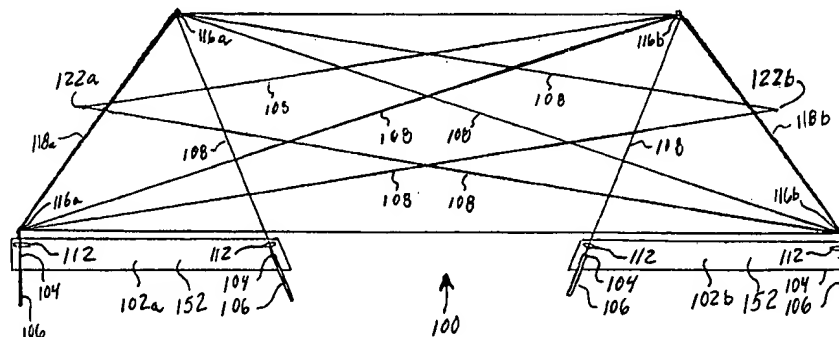




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(54) Title: FLEXIBLE, MODULAR, COMPACT FIBER OPTIC SWITCH



(57) Abstract

A fiber optic switch (400) includes a fiber optic switching module (100) that receives and fixes ends (104) of optical fibers (106). The module (100) includes numerous reflective light beam deflectors (172) which may be selected as pairs for coupling a beam of light (108) between a pair of optical fibers (106). The module (100) also produces orientation signals from each deflector (172) which indicate its orientation. A portcard (406) included in the switch (400) supplies drive signals to the module (100) for orienting at least one deflector (172). The portcard (406) also receives the orientation signals produced by that deflector (172) together with coordinates that specify an orientation for the deflector (172). The portcard (406) compares the received coordinates with the orientation signals received from the deflector (172) and adjusts the drive signals supplied to the module (100) to reduce any difference between the received coordinates and the orientation signals. The switch (400) also employs optical alignment to precisely orient pairs of deflectors (172) coupling a beam of light (108) between optical fibers (106).

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INTERNATIONAL SEARCH REPORT

International application No.:
PCT/US99/21139**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G02B 6/35

US CL : 385/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 385/18, 47, 17, 19

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

BRS: ((fiber\$1 or waveguide\$1) with switch\$3)) same (mirror\$1 or reflector\$1 or deflector\$1)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---- Y	US 5,440,654 A (LAMBERT JR. et al.) 08 August 1995 (8.8.95), see entire document.	1-2, 4, 7-8, 12 ----- 3, 5-6, 9-11, 13-20
X ---- Y	US 4,365,863 A (BROUSSAUD) 28 December 1982 (28.12.82), see entire document.	1-2, 4, 7-8 & 12 ----- 3, 5-6, 9-11 & 13-20
Y	US 5,727,098 A (JACOBSON) 10 March 1998 (10.3.98), see entire document especially fig. 3 and col. 8 line 26 - col 9 line 15.	18-20



Further documents are listed in the continuation of Box C.



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"P" document published prior to the international filing date but later than the priority date claimed	

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